

Notice of Allowability	Application No.	Applicant(s)	
	10/018,815	KOIDE, TAKEHIKO	
	Examiner	Art Unit	
	Malgorzata A. Walicka	1652	

-- **The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to Feb. 18, 2005.
2. The allowed claim(s) is/are 2-9.
3. The drawings filed on 21 December 2001 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of
 Paper No./Mail Date _____.
7. IDENTIFYING INDICIA such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 08/28/03
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

The Amendment of February 18, 2005 is acknowledged. Claim 5 has been amended. Claims 2-9 are pending and are the subject of this Office Action.

DETAILED ACTION

1. Rejections

1.1. 35 USC, section 112, first paragraph

Rejection of claim 2-9 for lack of written description of the human antithrombin III amino acid sequence has been withdrawn in the light of Applicants filing, as Exhibit 2, the article by Chandra et al., Proc. Natl. Acad. Sci., 983, disclosing the amino acid sequence of the wild type of the human antithrombin III that was mutated by Applicants. In addition, Applicant's arguments that the article by Tokunaga F. and the inventor, J. Biochem., 1994, discloses the amino acid sequence of human antithrombin III, is persuasive.

Furthermore, after reconsideration of the content of Japanese Patent No. 262598/1990 and corresponding to EP 0384122, the examiner admits that the documents do disclose the complete amino acid sequence of natural human antithrombin III.

1.2. 35 USC section 103

Rejection of claims 5 and 9 is withdrawn, because claim 5 has been amended not to recite Leu, Ile and Val as suggested by the examiner in the last Office Action and during the interview of Nov. 3, 2004.

2. Allowance

Claims 2-9 are allowed. The following is the examiner's reason for allowance.

Applicants disclose mutants of human antithrombin III with potential clinical application. The mutants are obtained by substitution of Ser 380 by non-bulky amino acids, and do not require heparin for their activation. The closest prior art are the articles by Huntington et al., 1996 and 1998, who discovered the heparin independent antithrombin III variants that are also substituted in position 380. Huntington used, however, substitution of Ser 380 but a bulkier amino acid, Trp. Huntington does not suggest that non-bulky amino acid can be used for making heparin-independent antithrombin III variant, thus the claims are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malgorzata A. Walicka whose telephone number is (571) 272-0944. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached on (571) 272-0928. The fax

Art Unit: 1652

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Malgorzata A. Walicka, Ph.D.

Art Unit 1652

Patent Examiner

Rebecca Prouty
REBECCA E. PROUTY
PRIMARY EXAMINER
GROUP 1800
1652